
Introduction

Document overview

This document describes fault clearing and maintenance procedures for the Digital Trunk Interface (DTI) feature on Meridian 1. Fault clearing and maintenance procedures for the Computer-to-PBX Interface (CPI) application are the same as for DTI applications except for yellow alarm (remote alarm) recognition and transmission. (See “DTI fault clearing” on page 5).

This document covers the following topics:

- **Introduction** gives an overview of this document, lists related documentation, lists Meridian 1 programs impacted by the DTI feature, and provides a terminal number-to-channel number translation table.
- **DTI fault clearing** gives steps for performing a status check, clearing alarm conditions, and handling DTI problems.
- **DTI maintenance** covers maintenance commands, tests, system messages, error detection, the Error Counter, replacing a DTI pack, and cabling.
- **Clock Controller (CC) maintenance** describes Clock Controller operations, maintenance commands, system messages, replacing the Clock Controller, and cabling.

Information in this document is presented in a two-page modular format wherever possible. However, if the material requires only one page or more than two pages, the page between modules may be left blank.

Note 1: The DTI interface requires a QPC472 DTI or QPC720 Primary Rate Interface (PRI) card. Since this document deals with DTI functions, both cards are referred to as the DTI card or DTI hardware whenever their functionality is identical.

Note 2: Throughout this document, Meridian 1 refers to Meridian SL-1 M, N, NT, RT, ST, and XT machines and Meridian 1 system options 21, 51, 61, and 71, unless otherwise noted.

Other documentation

Refer to the following Northern Telecom Publications for more information:

- *X11 input/output guide* (553-3001-400)
- *Digital Trunk Interface/Computer-to-PBX Interface installation and data administration* (553-2811-200)

Affected programs

Maintenance Diagnostic Programs The DTI feature affects the following diagnostic programs, described in the *X11 input/output guide* (553-3001-400):

LD 30	Network Signaling
LD 32	Network and PE Replacement
LD 36	Trunk Diagnostic No. 1
LD 41	Trunk Diagnostic No. 2
LD 45	Background Signaling and Switching
LD 60	DTI Hardware
LD 92	Automatic Trunk Maintenance

System Utility. DTI impacts two system utility programs, described in the *X11 input/output guide* (553-3001-400).

LD 02	Traffic Control
LD 80	Call Trace

Service Change Programs DTI impacts the following Service Change and Print programs, described in *Digital Trunk Interface/Computer-to-PBX Interface installation and data administration* (553-2811-200) and the *X11 input/output guide* (553-3001-400):

LD 14	Trunks
LD 16	Routes
LD 17	Configuration
LD 20	Print Routine 1
LD 21	Print Routine 2
LD 22	Print Routine 3
LD 25	Move Data Blocks
LD 73	Digital Trunk Interface
LD 81	Features/Stations Print

TN to channel number conversion

DTI terminal numbers (TNs) have an equivalent channel number. The TN is output instead of the channel number in some Meridian 1 messages. The TN to channel number translation is shown below. Note that the translation is different for the D2 framing format than the formats for D3, D4 or Extended Superframe (ESF).

Terminal numbers (TNs) are identified in software by Loop (LL), Shelf (SH), Card (C), and Unit (U) numbers. Each channel on the DTI card is referenced by a TN. See Table 1.

Table 1
DTI channel numbers and equivalent terminal numbers (Part 1 of 2)

Channel Number	D2 Format TN SH C U	D3,D4,ESF Format TN SCHU
1	1 4 0	0 1 0
2	1 5 0	0 2 0
3	0 1 0	0 3 0
4	2 1 0	0 4 0

Table 1
DTI channel numbers and equivalent terminal numbers (Part 2 of 2)

Channel Number	D2 Format TN SH C U	D3,D4,ESF Format TN SCHU
5	0 5 0	0 5 0
6	2 5 0	0 6 0
7	1 1 0	0 7 0
8	1 7 0	1 8 0
9	0 3 0	1 1 0
10	2 3 0	1 2 0
11	0 7 0	1 3 0
12	2 7 0	1 4 0
13	1 3 0	1 5 0
14	1 6 0	1 6 0
15	0 2 0	1 7 0
16	2 2 0	2 8 0
17	0 6 0	2 1 0
18	2 6 0	2 2 0
19	1 2 0	2 3 0
20	2 8 0	2 4 0
21	0 4 0	2 5 0
22	2 4 0	2 6 0
23	1 8 0	2 7 0
24	3 8 0	3 8 0